

ABSTRACT

The present invention relates to a process for the production of an isotropic polymeric network comprising multifunctional molecules with a functionality,  $n$ , of at least 5 by contacting in a solvent an amount of the multifunctional molecules with an amount of a coupling agent, whereby through supramolecular chemistry a bond between the multifunctional molecule and the coupling agent is formed.

The invention furthermore relates to an isotropic polymeric network with a density lower than  $1300 \text{ kg/m}^3$  and a specific Young's modulus of at least  $0.007 \text{ GPa.m}^3/\text{kg}$ , shaped articles hereof and the use of the isotropic polymeric network as construction material.